



Winnebago County Master Gardeners

Newsletter

May 2021

Mission Statement

Our purpose is to provide horticultural education, community service and environmental stewardship for our community in affiliation with the University of Wisconsin Extension Program.

“Rough winds do shake the darling buds of May.”

-William Shakespeare



Warm weather brings daffodils to life!

Submitted by Anne Murphy

What am I?

By Jane Kuhn

I am an upright, unbranched, native, herbaceous perennial plant that originates from a stout tap root in zones 3-8. I range in height from 1.5 to 2.5 feet tall. My stems are sturdy and grayish or reddish-green and my leaves are elongated with three veins, basil on the top two thirds of the stem and alternate on the lower third. My flower heads are from ¾ to 3 inches wide with pale rose-purple or nearly white ray florets. Flowers have white pollen, bloom from May into July and there is a single flower head on each stem. I prefer full sun and have average water needs. I am drought tolerant and can thrive in any soils including clay.

Propagation occurs by division or seeds. I am ideal in prairie restoration and landscaping, native gardens, in borders, and as a cut or dried flower. I am resistant to deer and attractive to bees, butterflies and birds.

WCMGA Contacts

Check your membership guide for contact information.

Co-Presidents: Ed Dombrowski & Bob Kneepkens

Vice President: Kathy Procknow & Debra Butch

Secretary: Anne Murphy

Treasurer: Deby Voyles

Advisor: Kimberly Miller

Newsletter Compilation: Anne Murphy



We would love your help! If you are interested in contributing in a future newsletter by writing an article, submitting a photo, or sharing a story, please let me know by the 15th of each month by emailing pakster0605@yahoo.com. Each article submitted will count toward your volunteer hours. Thank you!

Letter from your Presidents: Ed Dombrowski & Bob Kneepkens

Dear Winnebago Master Gardener Members,

We hope you have had an opportunity to look at Canvas, the official learning management system of the UW. As Master Gardeners, we can access onboarding lite, Plants Plus, and Volunteer Vibe in one place. We think this is an incredibly positive change.

We continue to follow the UW's COVID guidelines for Master Gardeners. There is the anticipation that more project activities can occur outdoors. During the April Business meeting we were grateful to hear from project leads about their project goals and activities. We encourage members to take part in volunteer projects, based on ability, time, and one's comfort level. We want to thank those project leads that presented information about their project via Zoom.

The Membership Guide is updated and ready for distribution. We thank everyone contributing to this incredibly detailed project. We especially wish to thank **Ashley Rolph** and **Kimberly Miller** for keeping track of changes through the year.

Looking forward, May's Business Meeting speaker is Joy Perry from Wild Ones. She will be presenting "Gardening for the Birds and the Bees."

This year, "the Master Gardener Program is partnering with WiBee, a community science project developed at the University of Wisconsin-Madison. This is an opportunity to help researchers learn more about wild bees in Wisconsin. Special thank you to the Winnebago County Master Gardener Volunteers for advocating and working to make this project possible!" (bold emphasis added). We are proud and thankful to our members for helping to make possible a statewide citizen science project for Master Gardeners.

We want to express our sincere thank you to Kimberly for all she has done for our Association. During the past several years, Kimberly has guided us through a merger with the UW-Madison and laid a foundation for our Association to adapt to these changes. Kimberly's leadership helped our Association to safely navigate the precautions needed as we faced a once in a lifetime pandemic. We thank you for all you have done, and while we are saddened by your resignation, we also celebrate your new beginning as Program Coordinator for the WI Master Gardener Program. We wish you the absolute best.

Best Wishes,

Bob and Ed

Jerusalem Artichokes Provide Food and Beauty

By Lawanda Jungwirth

You've probably seen Jerusalem artichokes growing in roadside ditches or along trails and not known that there was a delicious edible vegetable growing below ground. These 6'-9' tall plants are in the sunflower family and produce bright yellow late summer flowers about 4" in diameter. The leaves have a rough, hairy texture and range in size from 12" on the lower part of the stem to much smaller as they progress upward.

The Jerusalem artichoke name is deceptive because these plants have nothing to do with Jerusalem and don't look like artichokes. The plant is native to North America and when Italian settlers arrived, they called it "girasole," the Italian word for sunflower. Over time, the pronunciation was corrupted to "Jerusalem." The artichoke part of the name comes from French explorers who sent the tubers back to France noting that the taste was similar to that of artichokes.

The Latin name for Jerusalem artichoke is *Helianthus tuberosus*. It has several other common names including sunchoke, sunroot, earth apple, French potato, Canada potato and Canadian truffle.

The edible part of the plant is the below-ground tuber which looks much like ginger root. Tubers vary in color from pale brown to red, purple and white. Tubers grow 3"-4" long and 1"-2" in diameter.

Raw tubers have a crispy texture similar to that of water chestnut and a sweet, nutty taste. When baked or roasted they become soft like potatoes. They can also be boiled, steamed, microwaved, fried or pickled. When mashed Jerusalem artichoke is added to mashed potatoes, they add a nutty depth of flavor.

Information about Jerusalem artichokes rarely appears in books on vegetable gardening, but when it does, they are assigned to the perennial vegetable section. If the tubers are left unharvested, the flowers will come back year after year and slowly spread.

Jerusalem artichokes need to be planted just once to supply edible tubers for years. Choose small, firm, healthy looking tubers. They should be planted in fall or as early as the ground can be worked in spring in rich, well-drained soil in full sun. Cut the tubers into pieces leaving an eye in each piece. Plant them about 4" deep and 12" apart. In choosing a location, keep in mind that they grow very tall and will shade nearby plants.

Tubers are dug in fall after the plants have died down, and can be dug anytime until the ground freezes. To harvest, cut back the dead growth and use a digging fork to lift the clumps of tubers. Any stray tubers can be carefully lifted by hand. Allow some tubers to remain in the ground to ensure a continuous crop. Some may break in the harvesting process and those should be used first as they won't store as long as intact tubers. They can be stored in the refrigerator for several weeks if you aren't ready to use them right away.

Answer to What am I?

By Jane Kuhn



I am pale purple coneflower. Order: Asterales. Family: Asteraceae / Compositae – Aster family. Genus: Echinacea Moench – purple coneflower. Species: Echinacea pallida (Nutt.) Nutt. – pale purple coneflower. When this plant is done blooming and beginning to go dormant it will provide many ecological benefits. Birds, particularly goldfinches, love to land on the seed heads and pick out the seeds to eat. Wisconsin is one of two states (other is Tennessee) that lists the species as threatened, mostly due to habitat loss and over collection of roots which are made into herbal medicine. However, the use of Echinacea as a medicinal plant has not been demonstrated to have any positive health effects. I can be found in the rain garden adjacent to the Coughlin Center.

References: USDA Plants Database and associated links.

Tomato in the Basement, Canary in the Coalmine

APRIL 18, 2021 Brian Hudelson, Plant Disease Diagnostics Clinic, UW Madison

I have the coolest job on the planet. Everyday, I get to help people with their plant disease problems. This may entail helping someone learn how to grow healthy, nutritious vegetables to feed their family or assisting a grieving family select the just the right tree to plant to serve as a lasting memorial for a recently lost loved one. On occasion, I get to help Wisconsin farmers avoid severe economic losses due to plant diseases or help prevent the introduction of federally regulated plant pathogens that potentially can have negative impacts nationwide. This month, I'd like to share with you a diagnostic case where a proper diagnosis had the potential to save someone's life.

I recently received photos from a home gardener who was growing tomato transplants indoors. She was concerned that her plants were not doing well and losing leaves. Her photos showed plants with leaves that were cupping downward and showed twisted petioles and other growth distortions. I was immediately suspicious that the plants had been exposed to ethylene. Ethylene is a gas that is a plant growth hormone that can be very beneficial for proper plant development; in particular, ethylene is important in fruit ripening. But in other situations, when plants are exposed at the wrong time or at too high of a concentration, ethylene can have negative effects, in fact exactly the sort of symptoms I was seeing in my client's photos: distorted plant growth and premature leaf loss.



Tomatoes suffering from ethylene exposure. Photo courtesy of Kristine Meixensperger.

After an exchange of several emails, the puzzle pieces started to fall into place. My client had been growing her tomatoes in the basement (not uncommon for many gardeners) next to the boiler that provided heat for her home. As the weather warmed up, she moved the plants to her garage where she parks her car and where she has a full kitchen. She had been cooking in this kitchen recently to provide a bit of additional warmth for her plants. Both her boiler and stove burn propane.

At this point, alarm bells were going off. If propane burners malfunction and don't burn propane completely, one of the breakdown products of this incomplete combustion is ethylene. You can also find ethylene in exhaust fumes from motor vehicles, in the smoke produced by wood-burning stoves and as a contaminant in natural gas. I suggested to my client that she should have her boiler and stove checked immediately for problems. One or both of these (and possibly also fumes from her car) were likely the source of ethylene that

was causing problems for her tomatoes. She emailed back to tell me that what I had told her made perfect sense as her tomatoes nearer the boiler had more severe symptoms than those farther away. Another sentence from this email became the inspiration for the title of this article: "So the tomato plants in the basement acted like a canary in a coalmine."

I told her that she was spot on with her analogy, and at that point, I gave potentially even more serious news. In addition to producing ethylene, malfunctioning propane burners (and other types of heating systems) also can produce carbon monoxide, a potentially deadly gas. According to the CDC, approximately 50,000 people visit hospitals with carbon monoxide poisoning each year and at least 430 of these people die from this poisoning. Luckily, my client had a carbon monoxide detector near the boiler and it hadn't gone off. But, the unit was old, and my client indicated that our conversation had made her realize that she needed to replace that unit.

What if she hadn't had a carbon monoxide detector? Then, those distorted tomatoes would have been her first hint that a potentially deadly carbon monoxide situation was developing. Similarly, if she had had distorted tomatoes growing near a natural gas-fueled furnace, that could have indicated a natural gas leak, another potentially lethal situation.

Ah, the power of a lowly vegetable and a bit of knowledge about how they grow!

From the Winnebago County Master Gardeners Invasives Project:

Valerie Stabenow, Invasives Project Lead

A Summary of a Community Science Field Campaign Revealing Habitat Preferences of Non-Native Asian Earthworms in an Urban Landscape

Non-native Asian Earthworms, or as we have come to know them, Jumping Worms, continue to be a landscape problem in Wisconsin as well as other states.

Several researchers: Carly Ziter (Concordia Univ. Montreal, Quebec); Bradley Herrick & Marie Johnston, (UW-Madison Arboretum); and Monica Turner, (UW-Madison), recently published the results of their work, investigating what kind of habitat these non-native Asian earthworms seem to prefer. It is hoped that this will help curb the spread of the worms. While we as Master Gardeners would like to see some sort of 'cure' or treatment to fight the spread, that does not seem to be available at this point. This summary provides an overview of the research on the worm's preferred habitat.

The basic life cycle of these worms is that juveniles hatch from cocoons when soils warm in late spring and then grow rapidly, with individuals reaching reproductive maturity between 77 and 93 days. (Gorres et al. 2016) Adults die at the end of the growing season, but produce frost-hardy cocoons that ensure overwinter persistence of the population (Gorres et

al 2016, Nouri-Aiin & Gorres 2019). The cocoons are small and are easily transported and spread in soil, mulch, horticultural plants as well as footwear and tools.

Jumping worms are also “dietary generalists” feeding on both leaf litter and soil (Zhang et al. 2010). Combined with extremely high population densities (over 200 individual worms per square meter [just over a square yd], their large body size and resource consumption rate compounds the effects of jumping worms on ecosystems. The consequences of this worm invasion on native vegetation are not as well understood, but the studies show potential for altered forest ecosystem dynamics...affecting tree growth, as well as negative effects in private and public lawns and gardens. Gardens can serve as ‘reservoirs’ for the worms harbored in soils or mulch, and landscaping activities can facilitate the spread (Bellitürk et al. 2015). Urban areas are also hotspots of non-native and invasive species because of the higher level of disturbance, greater resource diversity and species competition. Considering the importance of urban areas as vectors for spread of many invasive species, understanding the habitat preference is critical.

The research that was done was conducted by trained citizen scientists in the Madison, WI area, led by academic scientists and experienced local conservation practitioners. A variety of test locations were chosen, residential, non-residential and with a variety of land covers (grassland, forest, etc) After testing for jumping worm presence, grasslands were eliminated because jumping worms were not found in any of the grassland sites that were sampled.

Jumping worms were more frequently observed in forests and residential gardens compared with turfgrass dominated areas. Presence in residential lawns was lower than in other land-cover areas, with jumping worms largely restricted to lawns adjacent to invaded garden habitats. Where they were present, jumping worms were found in higher densities in forested sites and residential gardens. Also noted that where jumping worms were present, they were most likely found alone rather than co-occurring with other earthworm species.

As hypothesized, jumping worms were found more frequently at sites with leaf litter or mulch, including deciduous forests and residential gardens, and were found less frequently in grassy areas, including turfgrass and restored prairies or meadows. Human management and transport are also suspected to play a large role in urban jumping worm spread. Other areas in the researched locations in Madison with a high abundance of jumping worms included neighborhoods with active gardening communities, as well as areas of the university campus frequented often for outdoor recreation.

As a result of this research, the researchers advocated adoption of current best management practices as outlined by the Wisconsin Department of Natural Resources. These practices include: learn identification; reduce transfer of any materials that may serve as vectors of spread; and clean tools, vehicles, and personal gear/clothing (Wisconsin DNR 2015).

As a Winnebago County Master Gardener, please reference our website page

<http://www.winnebagomastergardeners.org/Member.html>

which has information, policies/procedure and guidelines related to Jumping Worms.

(The complete write-up of this research project appeared in Bioscience, March 2021/Vol. 71 No. 3). Reproduced by permission of Carly Ziter. If you would like a digital copy, please contact Valerie Stabenow hlub34a@att.net

Gardening in small spaces

April 12, 2021 by Natalie Hoidal, Extension educator in horticulture and food system agriculture

Gardening in small spaces requires you to maximize the space you have and keep potential problems under control. Here we review the top things to consider when gardening small.

Choose your plants wisely



Compact pepper plants and determinate tomatoes were chosen for this space because they grow well in containers.

When growing in a small space, it's hard to fight the temptation to plant too many things. Plants that are too close together end up competing for nutrients and light and a dense plant canopy can lead to more disease pressure. So, fewer plants that are properly spaced will actually give you a better yield than squeezing many plants in the same space.

With that in mind, avoid planting things like pumpkins and winter squash in a small garden - these crops take up a lot of space and are easy to find at farmers markets later in the summer. Stick to smaller plants to grow a wider variety of things.

For small containers like window boxes, herbs, annual flowers and leaf lettuce are great choices. These plants grow quickly, and you can usually get many harvests throughout the summer. An extra bonus to growing herbs is that you can dry them and enjoy them throughout the year.

When looking for plants that will grow well in containers, look for terms like "compact," "tidy plant habit" or "short stature" on plant or seed pack descriptions.

For some common vegetables, you'll need to decide between determinate and indeterminate varieties.

- A determinate variety will grow to a certain size and then flower and produce fruit all at once. Determinate varieties are typically preferred for growing in pots, as they require less maintenance and remain compact.
- An indeterminate variety will continue to grow, flower, and produce fruit throughout the summer. Indeterminate varieties typically require staking and pruning, whereas determinate varieties maintain a bush-like shape. If you have plenty of vertical space and trellising materials, an indeterminate variety can be a nice way to use that vertical space, allowing for other things like herbs in the understory.

Consider containers



Herbs don't take up much space and do well in containers.

Containers are a great way to add plants to a small space, especially to sidewalk or balcony areas. They are also a good choice for renters whose landlords will not allow for a garden in the ground.

Succession planting for fresh veggies all summer long

Succession planting is a key concept for small-space growers. If your goal is to have fresh produce all season long, space out your plantings by a couple of weeks rather than planting all at once.

Succession planting works especially well for short-season vegetables like lettuce, radishes, and peas. If you're starting seeds now, consider planting a few lettuce seeds this week, a few more two weeks from now, and a few more after that to provide a steady stream of lettuce throughout the spring.

Find ways to rotate

In annual gardens, crop rotation provides numerous benefits. Primarily, rotating between plant families helps to reduce disease pressure. Also, different plants use different proportions of nutrients and have varying root structures, so rotating the spots where you grow your vegetables can benefit the soil.

A few ways to rotate in a small space include building raised beds to delineate spaces, growing in pots, and coordinating with your neighbors. For example, one neighbor could grow tomatoes this year and another could grow cucumbers. Next year you can switch up who grows what, and everyone shares their harvests so you all get a bit of everything.

If you have multiple raised beds, keep your major plant families together in the same bed so that you can rotate them all to a new bed the following year. You can still interplant flowers and herbs into the beds, but try to keep the major families together. Examples of major vegetable families include:

- Solanaceous plants: tomatoes, peppers, potatoes, eggplant
- Cucurbits: cucumber, melons, squash, pumpkins
- Brassicas: broccoli, cauliflower, kale, pak choi, mizzuna, arugula, cabbage
- Apiaceae family: carrots, parsnips, cilantro, dill, fennel, parsley
- Alliums: garlic, onions, chives, leeks
- Amaranths: spinach, chard, beets, amaranth

If possible, maintain a 3-4 year rotation. If you plant tomatoes in a bed this year, try to avoid planting other solanaceous plants in that bed for about 3 years. This can be hard to do in a small garden, so just do your best.



Raised beds are a great way to create distinct areas in a garden, which helps with crop rotation.

Continuing Education Opportunities

Linda Werner

Those listed on the WCMGA website and Facebook page are approved for MG continuing education credit.

Xerces Society (All free) <https://xerces.org/events/webinars>

Thursday, May 6, noon-1:30 p.m. CST, Supporting Pollinators Over Time: How to Maintain Wildlife Diversity

Illinois Extension Get Growing Webinar Series with Grant McCarthy, Thursdays, 6-7 p.m. Free, but registration required at: <https://web.extension.illinois.edu/registration/?RegistrationID=23416>. Donations accepted.

Raised Bed and Container Vegetable Gardening, May 6.

Weed Management in the Vegetable Garden, May 13.

“Learning never exhausts the mind.”

-Leonardo da Vinci

Master Gardeners Present Scholarships

By Jane Kuhn

Winnebago County Master Gardeners Association recently presented scholarships to two highly qualified applicants in the high school graduating class of 2021. The annual scholarship from WCMGA was awarded to Natalie Ott, a resident of Oshkosh who will graduate from Berlin High School and will be attending Iowa State University to study Agribusiness/Agronomy. Included in her accomplishments include a GPA over 4.0, president and active member of 4-H and FFA, and attending leadership conferences and speaking events. She is a National Honor Society member, LINC Crew Commissioner, Key club member, in varsity softball and a math tutor. She is one of 15 members of the Wisconsin Department of Agriculture AG Youth Council where she advocates for the agriculture industry. One of her teachers states that through Natalie's hard work, determination and leadership, there is no doubt that she will succeed no matter the path she chooses. With a degree in Agribusiness, Natalie hopes to obtain a job in crop insurance or agricultural financing, helping the American farmer back to where they were years ago.

This year we were able to award a second scholarship to another very deserving student, Sadie Goettl. This scholarship of \$1000 was created as a memorial to Roy Anne Moulton by her best friend since childhood, Karen Kehr of Indiana. Master Gardeners is very thankful for Karen's generosity in Roy Anne's memory. Scholarship recipient Sadie is a resident of Winnebago County who attends Berlin High School and plans to study Agriculture Business Management at the University of Wisconsin. Sadie's outstanding qualifications include leadership, involvement and many hours of service through her high school career. She resides with her parents and grandparents on 45 acres where they grow vegetables, raise livestock and hunt wildlife. Some of her accomplishments include a GPA of over 4.0, involvement in 4-H resulting in numerous best in show, grand champion and other awards. Most rewarding to her is the realization of the impact she has had as a role model to younger members. Sadie has served in various FFA officer positions and activities. Including Miss United States Agriculture for the Central Wisconsin region. She plans to pursue degrees in Agriculture Business Management, Political Science and Law with the goal of a career as a lawyer or political lobbyist representing the agriculture industry and rural communities. One of her letters of recommendation states that Sadie is a driven and eager student with the intelligence to back up her ambition. She applies intense focus and energy to her academic work while being involved in many school and community activities. Her work ethic and her intellect will carry her far.

The Master Gardener Scholarship Committee developed the process and criteria for the annual scholarship which was open to high school seniors residing in Winnebago County who are enrolled in a post-secondary educational institution in an area of study including horticulture, landscaping, agriculture, forestry, conservation or other similar areas approved by the committee and board. Plans are to continue offering this scholarship annually with information coming out in January of each year.

WCMGA Projects

Check your Member Guide for contact information.

Project	Project Lead(s)
Butterfly Garden Miravida Living Oshkosh	Jane Kuhn
Carter Memorial Library, Omro	Jenny Breining
Coughlin Rain Garden	Ed and Jill Dombrowski
Octagon House, Neenah	Jerry Robak
Invasive Species	Valerie Stabenow/Sue Egner
Morgan House	Kathy Schultz
Neenah Public Library	Susan Forbes/Bette Hoytink
Oshkosh Area Humane Society	Julie Miller/Matt Miller
Paine Gardens & Arboretum	Virginia Slattery
Park View Cutting Garden	Donna Kudlas/Jane Kuhn
Park View Prairie Garden	Carol Swannell/Ruth Eberwine
Park View Flower Arranging	Lil Hansche/Diane Thompson
Park View Vegetable Garden	Tom Weber (with assistance from Renee Donner)
Farmer's Market	Synda Jones/Patty Schmitz
Plant Health Advisors	Mary Shepard
Sullivan's Woods	Linda Loker

Project Leads: If you'd like your meetings listed on the calendar, please email information to Anne Murphy pakster0605@yahoo.com.

May 2021

Sun	Monday	Tuesday	Wednesday	Thursday	Friday	Sat
						1
2	3	4 Board Mtg. 6 PM	5	6	7	8
9	10	11 Business Mtg. 6 PM	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31 					

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